

WHAT IS CLAIMED IS:

1. A location information transmission method for reporting on-road location on a digital map,

characterized in that an information provider transmits on-road

5 location information by using road shape data including said on-road location information consisting of a string of coordinates representing the road shape of a road section having a length that depends on the situation and relative data indicating said on-road location in said road section; and

10 that a party receiving said on-road location information performs shape matching to identify said road section on the digital map and uses said relative data to identify the on-road location in said road section.

15 2. A location information transmission method according to claim 1,

characterized in that said method uses a string of coordinates arranging latitude/longitude data of the road point per predetermined distance interval as a string of coordinates

20 representing said road shape.

3. A location information transmission method according to claim 1, characterized in that said method uses distance data from a specific point in the road section as said relative data.

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4. Location information transmission apparatus for

exchanging information about the on-road location on a digital map,

characterized in that apparatus at an information provider comprises a location information converter for converting transmit

5 on-road location information to road shape data including said on-road location consisting of a string of coordinates representing the road shape of a road section having a length that depends on the situation and relative data indicating said on-road location in said road section; and

10 that apparatus at a party receiving the on-road location information comprises a shape matching section for performing shape matching by using said road shape data, identifying said road section on a digital map and identifying the on-road location in the road section by using said relative data.

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5. Location information transmission apparatus according to claim 4, characterized in that said apparatus uses a string of coordinates arranging latitude/longitude data of the road point per predetermined distance interval as a string of
20 coordinates representing said road shape.

6. Location information transmission apparatus according to claim 4, characterized in that said apparatus uses distance data from a specific point in said road section as said relative
25 data.

7. A traffic information provision/reception system, characterized in that said system comprises location information transmission apparatus according to claim 4.

5 8. A traffic information provision/reception system according to claim 7, characterized in that said information provider is a center for collecting traffic information in the area and that said party receiving the on-road location information is a center for collecting traffic information in other areas.

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10 9. A traffic information provision/reception system according to claim 7, characterized in that said information provider is an infrastructure for providing traffic information and that said party receiving the on-road location information is a car-mounted navigation apparatus.